## REMARKS/ARGUMENTS

According to the Office Action, claims 1-28 stand rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter of the invention. In particular, it is alleged that the terms "said engaging gears" in claim 1, lines 5-6, lack antecedent basis. In response, claim 1 is amended to replace "said engaging gears" with -- said engaging members --, which has antecedent basis.

According to the Office Action, claims 1-18, 20, 21, and 23-37 rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent 4,019,405 issued Winter et al.

In response, independent claims 1, 29, and 37 are amended to recite "a primary engaging member comprising a first side having a single engaging section and a single non-engaging section." This element of the claims is neither described nor suggested in the Winter Patent, which shows a primary gear 11 including a plurality of toothed segments 12 interspersed with a plurality of blank segments 13. The plurality of toothed segments 12 are angularly spaced apart around the whole circumference of the primary gear.

It is respectfully submitted that the gear system of the Winter Patent appears to present an unworkable solution. To illustrate this point, enclosed is an Attachment containing an annotated Figure 1 of the Winter Patent (Attachment Figure A), and additional figures (Attachment Figures B and C) illustrating the possible angular orientations of the pinion gear 16 at positions $P_{1A}$, $P_{1B}$, and $P_{2A}$, and at position $P_{2B}$, wherein position $P_{1A}$ is at the same angular position as $P_{2A}$, and position $P_{1B}$ is at the same angular position as $P_{2B}$. The Winter gear system may be designed to provide proper angular orientation of the pinion gear 16 so that it engages with the plurality of toothed segments 12 as it rotates around the disc 11 for only a particular diameter, for example diameter $D_1$. Accordingly, as shown in Attachment Figure B, the pinion gear 16

at positions $P_{1A}$ and $P_{1B}$ along diameter $D_1$ is in the angular orientation for proper engagement with the corresponding pair of toothed segments 12.

However, for a different diameter, such as larger diameter $D_2$, the pinion gear 16 will have to travel a different distance between the same angular positions than it would have if it where rotating around diameter $D_1$. For example, at diameter $D_1$, the pinion gear 16 would have traveled the following "Distance 1" from position $P_{1A}$ to position $P_{1B}$:

$$\text{Distance 1} = PI * D_1 * (4/9)$$

Whereas, at diameter $D_2$, the pinion gear 16 would have traveled the following "Distance 2" from position $P_{2A}$ to position $P_{2B}$

$$\text{Distance 2} = PI * D_2 * (4/9)$$

Since $D_2$ is greater than $D_1$, Distance 2 is greater than Distance 1. Since the pinion gear 16 has to travel farther when at diameter $D_2$, the pinion gear 16 angular orientation at position $P_{2B}$ may be different as shown in Attachment Figure C. At such angular orientation, the respective teeth of the pinion gear 16 and the toothed segment 12 collide, causing problems such as backlashing and buckling. Thus, the gear system described in the Winter Patent appears to have significant engagement problems as it rotates.

The claims of the invention specify a single engaging section and a single non-engaging section. The single engaging section may be designed to span a limited angular distance $\phi$ such that movement along the diameters of the plurality of engaging members does not translate into a significant difference in

their angular orientation. This allows the plurality of engaging gears to properly engage with the single engaging section in any diameter and angular position. Thus, the single engaging section limited by a particular angular distance $\phi$ and using a plurality of engaging members to provide continuous engagement with the primary engaging member, results in a transmission system that can easily provide gear ratio changing without backlashing, buckling or other engagement problems. For the above reasons, withdrawal of this rejection is respectfully requested.

According to the Office Action, claims 19 and 22 stand rejected under 35 U.S.C. 103(a) for allegedly being unpatentable over the Winter Patent. Claims 19 and 22 depend from independent claim 1. Therefore, for the reasons outlined above, this rejection is respectfully traversed.

New claims 38-40 are added herein by amendment.

In view of the foregoing amendments and remarks, allowance of this patent application is respectfully requested.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response. Please charge any such fee or any deficiency in fees, or credit any overpayment of fees, to Deposit Account No. 05-1323 (Docket 100751.52969US).

Respectfully submitted,

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